

vivid9 GE machine. Target heart rate, symptoms and vitals are put as the level of achievement.

**Results:** Out of 30 patients enrolled, 60 % of patients the target heart rate was not achieved in spite of atropine injection or reaching the stage 4. This may be due to the long lasting effect of beta blocker in them. Out of it 5 had chest pain, and baseline ECG changes. All these 5 patients underwent coronary angiogram, which were normal.

**Conclusion:** Dobutamine stress echo was not found as an effective tool in pre op cardiac risk evaluation in pre transplant patients. Better strategical tool has to be separately studied in detail.

## Ultrasound lung comets and their utility in predicting left ventricular filling pressures

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**Background:** Ultrasound lung comets (ULCs), otherwise known as B-lines are reverberation artefacts arising from water-thickened superficial Pulmonary Interlobular septa. The B-lines have emerged as a useful marker for rapid bedside assessment of Extravascular Lung Water (EVLW). Identification and quantification of ULC can be done by even inexperienced operators within minutes (average examination time <3minutes), without much interobserver variability. This study was designed to assess whether ULCs correlates with Echocardiographically derived Left Ventricular filling pressures.

**Methods:** 46 patients who were admitted in our Coronary Care Unit between April 2014 and July 2014 with Myocardial Infarction and Killip Class of II-IV were studied. 2D Echocardiogram was done using Esoate My Lab Gold 30 machine and using the same cardiac probe, lung fields were studied in supine position from Parasternal to Mid-Axillary line in the 2nd to 5th Intercostal space on the right and 2nd to 4th on the left. The ULC score was calculated by summing the number of comet artefacts in each of the examining sites.

**Results:** There was significant correlation between the ULC score and doppler derived PCWP in patients with Pulmonary edema following Myocardial Infarction ( $r = 0.77$ ,  $p = .0001$ ). Also positive linear correlation was found between ULC scores and Left ventricular Ejection Fraction ( $r = -.76$ ,  $p = .0001$ ) using the Pearson's 2-tailed test.

**Conclusion:** Identification of B-lines in Lung ultrasound has the potential to become an indispensable tool for the rapid identification of Cardiogenic Pulmonary edema and elevated Left Ventricular filling pressures in patients presenting with dyspnea to the Emergency Department.

## Epidemiology

### Preventing sudden cardiac death in the young: Results form a population-based screening program in the UK

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**Background:** Sudden cardiac death (SCD) in the young is commonly attributed to inherited cardiac conditions, a considerable proportion of which can be detected during life. To prevent such tragedies, learned sporting and scientific bodies recommend pre-participation screening in young athletes. However, most SCDs in the young are likely to occur in non-competitive athletes. The aim of this study was to report the results of a population screening program in the UK.

**Methods:** During 2012, 12000 individuals, aged between 14 and 35 years, were screened, irrespective of athletic activity. Screening was performed at a cost of £35/individual and comprised of a health questionnaire, 12-lead ECG and consultation with a cardiologist. Individuals with abnormalities underwent a transthoracic echocardiogram on the day or were referred for further evaluation. Follow-up data were obtained through self-reported patient questionnaires.

**Results:** Of the 12,000 individuals screened (including 13% elite athletes), 9.4% underwent echocardiography on the day. Ultimately, 323 (2.7%) individuals were referred for further assessment, 231 responded to the questionnaire and 189 had completed their follow-up investigations. Individuals were subjected to an average of 1.6 further investigations (ECHO 31%, 24-hour ECG monitor 30%, exercise test 22%, MRI 12%, other 5%). A cardiac pathology or findings necessitating regular follow-up were identified in 31 (16%) of the 189 individuals (TABLE).

**Conclusion:** Our results indicate that a large-scale population screening program based to similar methodology to the European Society of Cardiology recommendations is feasible. Our low referral rate indicates that young individuals with potentially sinister conditions can be identified at a relative low additional cost and investigation burden to the National health system.

**Table: Cardiac pathology or findings requiring regular follow-up detected via population screening in 2012.**

Cardiac diagnosis	Frequency	Cardiac diagnosis	Frequency
Hypertrophic Cardiomyopathy	1	Cor Triatriatum	3
Arrhythmogenic Right Ventricular Cardiomyopathy	1	Irregular heart rhythm	9
Dilated Cardiomyopathy	1	Heart Blocks	10
Catecholaminergic Polymorphic VT	2	Valvular heart disease	6
Wolff-Parkinson-White Syndrome	4	T-wave inversion under follow-up	4

### The prevalence of early repolarisation pattern in young Indian population

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